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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/805,728	PARNELL ET AL.	
	Examiner	Art Unit	
	JOSHUA TAYLOR	2426	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 10/13/2008 have been fully considered but they are not persuasive. On page 14, Applicant makes the observation that "Dougall, however, fails to teach or suggest at least the limitation of "transforming respective filenames of said files into respective file identifiers, each of said file identifiers comprising a packet identifier (PID) associated with a communications channel selected to transport said file," as claimed in Applicants' claim 1. However, Examiner never claimed that Dougall teaches this, but rather that it is taught by the combination of Dougall and Libenzi. Therefore, in response to applicant's arguments against the references individually, Examiner contends that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

On page 15, Applicant argues that Libenzi fail to bridge the substantial gap between Dougall and Applicant' invention of claim 1, saying that Libenzi does not teach "transforming filenames into file identifiers, each of said file identifiers comprising a packet identifier associated with a communications channel selected to transport the file." However, Examiner never claimed that Libenzi teaches this, but rather that it is taught by the combination of Dougall and Libenzi. Examiner claimed that Libenzi teaches transforming filenames into file identifiers. What these file identifiers are then used for does not detract from the fact that a filename has been transformed into a file identifier.

Continuing on page 15, line 27 to page 16, line 19, Applicant argues that the file identifiers of Dougall and Libenzi cannot be used together, and thus that Dougall and Libenzi cannot be operably combined, because the file identifiers of Dougall and Libenzi must include different information which is used for different purposes. However, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Libenzi is teaching that filenames can be transformed into file identifiers. Dougall discloses the rest of Applicant's invention as recited in claim 1, however does not disclose the step of transforming filenames into file identifiers, but rather assigns file identifiers to file names. Libenzi teaches of another way to get from a filename to a file identifier, and thus the further definitions and capabilities of the respective file names and identifiers is not relevant to the combination.

On page 17, regarding claims 19-24, Applicant's arguments are moot in view of the new grounds of rejection necessitated by amendment.

On pages 18 through 20, regarding claims 25-31, Applicant argues that Dougall fails to teach or suggest "transmitting to a receiver associated with one of the plurality of program identifiers a list including a respective data identifier for each set of at least one packet associated with the same program identifier as the receiver." Examiner contends that Dougall does, in fact, teach this limitation, and that the cited passage is intended to point Applicant to a general explanation of the related limitation, but that the reference as a whole is used to reject the claim. More specifically, Examiner points Applicant to paragraph [0076], where Dougall discusses in

more detail lists of PIDs. The remainder of Applicant's arguments regarding claims 25-31 are similar to previous arguments made earlier in the response as to why Dougall and Libenzi to not disclose the limitations of the claims, and have thus already been addressed.

On pages 21 through 23, regarding claims 36-41, Applicant argues that Dougall does not disclose a "client processor." However, Examiner contends that Dougall does, in fact, teach this limitation, and that the cited passage is intended to point Applicant to a general explanation of the related limitation, but that the reference as a whole is used to reject the claim. More specifically, Examiner points Applicant to paragraph [0030], where Dougall discloses that a client node has a memory, a communication interface and a processor, and that Dougall does in fact teach of a client processor. The remainder of Applicant's arguments regarding claims 36-41 are similar to previous arguments made earlier in the response as to why Dougall and Libenzi to not disclose the limitations of the claims, and have thus already been addressed.

On page 23 through 25, regarding claims 44 and 45, Applicant argues that Dougall does not teach or suggest a sender having at least one file storage medium, a packetizer, a transform, a multiplexer, and at least one file manager. However, Examiner contends that Dougall does teach this. The passage cited gives a general overview of the sender claimed by Applicant, and the discussion of what this sender is doing makes it obvious to one of ordinary skill in the art at the time of the invention that certain elements must be contained in this sender. However, if one looks more closely at Dougall, explicit mention of the specific elements can be founds, such as storage (paragraph [0088]), a packetizer (paragraph [0094]), a multiplexer (paragraph [0012]), and a manager (paragraph [0150]). The remainder of Applicant's arguments regarding claims 44-

45 are similar to previous arguments made earlier in the response as to why Dougall and Libenzi to not disclose the limitations of the claims, and have thus already been addressed.

On page 25 through 27, regarding claim 46, Applicant's arguments are similar to previous arguments made earlier in the response as to why Dougall and Libenzi to not disclose the limitations of the claims, and have thus already been addressed.

On page 27, regarding claims 16 and 18, Applicant's arguments are similar to previous arguments made earlier in the response as to why Dougall and Libenzi to not disclose the limitations of the claims, and have thus already been addressed.

On page 27 through 29, regarding claim 43, Applicant argues that Ungstad fails to teach or suggest "spinning a plurality of data units from the group consisting of packets and files without transmitting a directory of all of the data units being spun" and "calculating information used to spin the units of data by a common calculation that is used by the television converter to receive the units of data without a directory of all of the data units being spun," as claimed in Applicants' claim 43. However, Examiner contends that the combination of references, when viewed as a whole, would mean that the teaching of Ungstad relating to cyclic redundancy would enable one of ordinary skill in the art, at the time of the invention, to modify the teachings of Dougall and Libenzi to obtain the method of claim 43.

On pages 29 and 30, regarding claims 3, 4, 9 and 12, Applicant's arguments are similar to previous arguments made earlier in the response as to why Dougall and Libenzi to not disclose the limitations of the claims, and have thus already been addressed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8, 10-11, 13-15, 17, and 25-42, 44-46 are rejected under U.S.C. 103(a) as being unpatentable over Dougall et al. (Pub. No.: US 2003/0093485) in view of Libenzi (Pat. No.: US 6,745,192).

Regarding claim 1, Dougall discloses **a method for transporting files from a cable headend** (paragraph [0020], lines 1-3)**, comprising: assigning respective filenames of said files to respective file identifiers** (paragraph [0070], lines 9-11)**, each of said file identifiers comprising a packet identifier (PID)** (paragraph [0070], lines 8-9) **associated with a communications channel selected to transport said file** (paragraph [0070], lines 9-11)**; wherein said file identifiers are adapted to enable receivers of said communications channels to selectively receive a file by processing the communications channel associated with the file** (paragraph [0073], lines 5-7)**.** However, Dougall does not disclose **transforming respective filenames of said files into respective file identifiers.** However, in analogous art Libenzi does (column 3, lines 5-10, column 5, line 66 – column 6, lines 19. Libenzi teaches calculating identifiers from a unique filename, which transforms the filename). Therefore, it

would have been obvious to one of ordinary skill in the art at the time of the invention to modify Dougall to include transforming filenames. This would have been highly desirable, as it would allow the transmission network to assign unique file identifiers to the file names in a way that could be repeated at the receiver, thus allowing for more efficient data transfer.

Regarding claim 2, the combined teachings of Dougall and Libenzi disclose **wherein said communications channel transports an MPEG 2 bitstream** (Dougall, paragraph [0066], lines 3-4).

Regarding claim 5, the combined teachings of Dougall and Libenzi disclose **wherein, for each of said filenames, said transforming step includes generating a number with an approximately uniform probability distribution** (Dougall, paragraph [0168], lines 1-3. A generated random number will have an approximately uniform probability distribution).

Regarding claim 6, the combined teachings of Dougall and Libenzi disclose **wherein a first portion of the number is used as a payload identifier** (Dougall, paragraph [0034], lines 10-19).

Regarding claim 7, the combined teachings of Dougall and Libenzi disclose **wherein a second portion of the number is used as a multicast identifier** (Dougall, paragraph [0038], lines 7-9).

Regarding claim 8, the combined teachings of Dougall and Libenzi disclose **further comprising: detecting a collision condition in which at least two packets are transmitted having the same multicast identifier, each having a respectively different filename associated therewith; transmitting information associating one of the at least two packets**

with a non-colliding multicast identifier; and transmitting the one packet using the non-colliding multicast identifier (Dougall, paragraph [0170], lines 1-11).

Regarding claim 10, the combined teachings of Dougall and Libenzi disclose **wherein the file identifier is a binary number** (Dougall, paragraph [0070], lines 7-9).

Regarding claim 11, the combined teachings of Dougall and Libenzi disclose **wherein, for each of the filenames, said transforming step comprises: calculating the file identifier based on one of the group consisting of a cyclic redundancy code, a hash function and a pseudorandom number formed from the respective filename** (Dougall, paragraph [0168], lines 1-3).

Regarding claim 13, the combined teachings of Dougall and Libenzi disclose **further comprising transmitting a packet identifier usage bitmap that identifies which packet identifiers are being used to transmit payload data** (Dougall, paragraph [0034], lines 12-15).

Regarding claim 14, the combined teachings of Dougall and Libenzi disclose **further comprising: selecting at least one portion of the one of the group consisting of a cyclic redundancy code, a hash function and a pseudorandom number; and transmitting along with a unit of payload data a payload identifier comprising the selected portion** (Dougall, paragraph [0034], lines 10-19, paragraph [0168], lines 1-3).

Regarding claim 15, the combined teachings of Dougall and Libenzi disclose **wherein the at least one packet is transmitted using a multicast identifier formed from at least one portion of the one of the group consisting of a cyclic redundancy code, a hash function and a pseudorandom number** (Dougall, paragraph [0170], lines 1-11, paragraph [0168], lines 1-3).

Regarding claim 17, the combined teachings of Dougall and Libenzi disclose **wherein the payload data include one of the group consisting of Moving Picture Experts Group (MPEG) 1 packets and MPEG 2 packets** (Dougall, paragraph [0066], lines 3-4).

Regarding claim 25, Dougall discloses **a method for transmitting data, comprising the steps of: (a) assigning a plurality of packet identifiers based on respective bit sequences associated with respective sets of at least one packet** (Dougall, paragraph [0070], lines 8-11); **(b) associating each set of at least one packet with the respective packet identifier calculated from the bit sequence for that set of at least one packet** (Dougall, paragraph [0034], lines 10-19); **and (c) transmitting to a receiver associated with one of the plurality of packet identifiers a list including a respective data identifier for each set of at least one packet associated with the same packet identifier as the receiver** (Dougall, paragraph [0036], lines 1-6). However, Dougall does not disclose **transforming a plurality of packet identifiers based on respective bit sequences associated with respective sets of at least one packet.** However, in analogous art Libenzi does (column 3, lines 5-10, column 5, line 66 – column 6, lines 19. Libenzi teaches calculating identifiers from a unique filename, which transforms an identifier based on a bit sequence, i.e. a filename). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Dougall to include transforming program identifiers. This would have been highly desirable, as it would allow the transmission network to assign unique file identifiers to in a way that could be repeated at the receiver, thus allowing for more efficient data transfer.

Regarding claim 26, the combined teachings of Dougall and Libenzi disclose **wherein step (a) includes generating a number with an approximately uniform distribution using a**

filename as an input (Dougall, paragraph [0168], lines 1-3. A generated random number will have an approximately uniform probability distribution).

Regarding claim 27, the combined teachings of Dougall and Libenzi disclose **wherein each packet has a multicast identifier that is calculated based on the bit sequence associated with the packet, the method further comprising: detecting a collision condition in which at least two packets are transmitted having the same multicast identifier, each of the at least two packets having a respectively different bit sequence associated therewith; transmitting information associating one of the at least two packets with a non-colliding multicast identifier; and transmitting the one packet using the non-colliding multicast identifier** (Dougall, paragraph [0170], lines 1-11).

Regarding claim 28, Dougall discloses **a method for receiving data, comprising the steps of: (a) assigning a packet identifier based on a bit sequence associated with a desired set of at least one packet, the packet identifier being associated with a receiver of the set of at least one packet** (Dougall, paragraph [0070], lines 8-11); **and (b) receiving a list associated with the packet identifier, the list containing a plurality of data identifiers, each data identifier in the list corresponding to a respective set of at least one packet that is to be received using that packet identifier** (Dougall, paragraph [0036], lines 1-6). However, Dougall does not disclose **transforming a packet identifier based on a bit sequence associated with a desired set of at least one packet.** However, in analogous art Libenzi does (column 3, lines 5-10, column 5, line 66 – column 6, lines 19. Libenzi teaches calculating identifiers from a unique filename, which transforms an identifier based on a bit sequence, i.e. a filename). Therefore, it would have been obvious to one of ordinary skill in the art at the time of

the invention to modify Dougall to include transforming program identifiers. This would have been highly desirable, as it would allow the transmission network to assign unique file identifiers to in a way that could be repeated at the receiver, thus allowing for more efficient data transfer.

Regarding claim 29, the combined teachings of Dougall and Libenzi disclose **further comprising; receiving a packet identifier usage bitmap that identifies which packet identifiers are being used to transmit payload packets** (Dougall, paragraph [0034], lines 12-15)**; and determining whether the desired set of at least one packet is available using the packet identifier usage bitmap and the calculated packet identifier** (Dougall, paragraph [0034], lines 16-19)**.**

Regarding claim 30, the combined teachings of Dougall and Libenzi disclose **further comprising: detecting a file-not-found condition if the calculated packet identifier for the desired set of at least one packet is identified as not being used to transmit data in the packet identifier usage bitmap** (Dougall, paragraph [0036], lines 6-12)**.**

Regarding claim 31, the combined teachings of Dougall and Libenzi disclose **further comprising: detecting a file-not-found condition if the calculated packet identifier for the desired set of at least one packet is identified as being used to transmit data in the packet identifier usage bitmap, and the data identifier corresponding to the desired set of at least one packet is not included in the list containing the plurality of data identifiers for that receiver** (Dougall, paragraph [0035], lines 1-8)**.**

Regarding claim 32, Dougall discloses **a system for transmitting a file from a sender to a receiver, the system comprising: a sender storage medium for storing said file**

(Dougall, paragraph [0037], lines 4-6), **said file having a corresponding file identifier; a converter for converting the contents of said file into bit stream to be transmitted** (Dougall, paragraph [0136], lines 1-7); **and a sender assigner for providing a packet identifier based on said file identifier; said converter incorporating said key into said bit stream for transmission to said receiver** (Dougall, paragraph [0137], lines 1-5). However, Dougall does not disclose **a sender transformer for providing a packet identifier based on said file identifier.** However, in analogous art Libenzi does (column 3, lines 5-10, column 5, line 66 – column 6, lines 19. Libenzi teaches calculating identifiers from a unique filename, which transforms based on a file identifier). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Dougall to include transforming file identifiers. This would have been highly desirable, as it would allow the transmission network to assign unique file identifiers to in a way that could be repeated at the receiver, thus allowing for more efficient data transfer.

Regarding claim 33, the combined teachings of Dougall and Libenzi disclose **wherein said receiver is configured to select said file by means of said packet identifier** (Dougall, paragraph [0036], lines 1-6).

Regarding claim 34, the combined teachings of Dougall and Libenzi disclose **wherein the server transmits a packet identifier usage bitmap that identifies which packet identifier is being used to transmit payload data** (Dougall, paragraph [0034], lines 12-15).

Regarding claim 35, the combined teachings of Dougall and Libenzi disclose **wherein the system further comprises a receiver that includes: a processor for calculating the packet identifier for a desired set of at least one packet using the same calculation used by**

the server to calculate the packet identifier for the at least one packet (Dougall, paragraph [0030], lines 1-3, paragraph [0034])**, and the processor detects a file-not-found condition if the packet identifier for the desired at least one packet is not listed in the packet identifier usage bitmap as being used to transmit payload data** (Dougall, paragraph [0036], lines 6-12, paragraph [0034], lines 12-15)**.**

Regarding claim 36, Dougall discloses **a system for receiving data, comprising: a client processor that assigns a payload identifier based on a bit sequence associated with a given set of at least one packet, the client processor using the payload identifier to receive the given set of at least one packet from a server** (Dougall, paragraph [0034], lines 10-19)**.** However, Dougall does not disclose **calculating a payload identifier based on a bit sequence associated with a given set of at least one packet.** However, in analogous art Libenzi does (column 3, lines 5-10, column 5, line 66 – column 6, lines 19. Libenzi teaches calculating identifiers from a unique filename). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Dougall to include calculating file identifiers. This would have been highly desirable, as it would allow the transmission network to assign unique file identifiers to in a way that could be repeated at the receiver, thus allowing for more efficient data transfer.

Regarding claim 37, the combined teachings of Dougall and Libenzi disclose **wherein the client processor generates a number with an approximately uniform probability distribution, and the payload identifier is at least a portion of the generated number** (Dougall, paragraph [0168], lines 1-3. A generated random number will have an approximately uniform probability distribution)**.**

Regarding claim 38, the combined teachings of Dougall and Libenzi disclose **wherein a second portion of the generated number is used as a multicast identifier** (Dougall, paragraph [0038], lines 7-9).

Regarding claim 39, the combined teachings of Dougall and Libenzi disclose **wherein the client includes: means for detecting a collision condition in which a received packet has a multicast identifier that matches the multicast identifier generated using the bit sequence** (Dougall, paragraph [0170], lines 1-11)**, but a payload identifier received with the packet is different from the payload identifier calculated by the client processor; mean for receiving information associating the desired set of at least one packet with a non-colliding multicast identifier** (Dougall, paragraph [0170], lines 1-11)**; and means for receiving the desired packet using the non-colliding multicast identifier** (Dougall, paragraph [0073], lines 5-7).

Regarding claim 40, the combined teachings of Dougall and Libenzi disclose **wherein the bit sequence is a file identifier** (Dougall, paragraph [0034], lines 12-15).

Regarding claim 41, the combined teachings of Dougall and Libenzi disclose **wherein the bit sequence is a filename and the client calculates the data identifier based on one of the group consisting of a cyclic redundancy code, a hash function and a pseudorandom number formed from the filename** (Dougall, paragraph [0168], lines 1-3. A generated random number will have an approximately uniform probability distribution).

Regarding claim 42, Dougall discloses **a computer readable medium encoded with computer program code, wherein when the computer program code is executed by a server processor, the server processor performs a method for transmitting a packet**

associated with a bit sequence, comprising the steps of: (a) assigning a data identifier based on the bit sequence (Dougall, paragraph [0034], lines 6-10); **(b) assigning the data identifier to the packet** (Dougall, paragraph [0034], lines 10-15); **and (c) transmitting said packet to a receiver using the data identifier** (Dougall, paragraph [0036], lines 1-12). However, Dougall does not disclose **calculating a data identifier based on the bit sequence.** However, in analogous art Libenzi does (column 3, lines 5-10, column 5, line 66 – column 6, lines 19. Libenzi teaches calculating identifiers from a unique filename). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Dougall to include calculating file identifiers. This would have been highly desirable, as it would allow the transmission network to assign unique file identifiers to in a way that could be repeated at the receiver, thus allowing for more efficient data transfer.

Regarding claim 44, Dougall discloses **a system including at least one file storage medium, said file storage medium including at least one file to be transported from a file sender to a file receiver** (Dougall, paragraph [0030], lines 1-16), **wherein each of said at least one file to be transported has associated therewith a corresponding file identifier, a sender comprising: a packetizer; a multiplexer; at least one file manager communicating with said file storage medium, said packetizer and said transform such that said files on said file storage medium are provided to said packetizer and said corresponding filenames are provided to said transform; said packetizer providing at least one corresponding data packet comprising said file to said multiplexer** (Dougall, paragraph [0034], lines 1-19); **for each file to be transported said multiplexer providing a packetized bitstream including said at least one file to be transported, each packet of said bitstream including said file**

identifier and at least a portion of said file (Dougall, paragraph [0070], lines 1-13). However, Dougall does not disclose **a transform providing a packet identifier based upon said corresponding filename to said multiplexer.** However, in analogous art Libenzi does (column 3, lines 5-10, column 5, line 66 – column 6, lines 19. Libenzi teaches calculating identifiers from a unique filename, which transforms the filename). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Dougall to include calculating file identifiers. This would have been highly desirable, as it would allow the transmission network to assign unique file identifiers to in a way that could be repeated at the receiver, thus allowing for more efficient data transfer.

Regarding claim 45, the combined teachings of Dougall and Libenzi disclose **further including a data carousel in communication with said packetizer and said multiplexer, wherein said packetizer provides said packets to said data carousel based upon said corresponding file identifier.** This claim is rejected on the same grounds as claim 44, as examiner takes Official Notice that a data carousel is notoriously well known in the art as a format to transmit data.

Regarding claim 46, Dougall discloses **a system including at least one file storage medium including at least one file to be transported from a sender to a receiver, wherein each of said at least one file to be transported has associated therewith a corresponding file identifier, a receiver comprising: at least one tunable filter; a processor programmed to utilize said at least one file to be transported; said processor providing said filename of said at least one file to be utilized to a tunable filter such that said tunable filter selects packets comprising said file and provides said selected packets to a packet processor, said**

packet processor providing said file to said processor (Dougall, paragraph [0034], lines 1-19, paragraph [0070], lines 1-13, paragraph [0076], lines 1-16)**.** However, Dougall does not disclose **a transform; said transform providing a packet identifier corresponding to said at least one filename.** However, in analogous art Libenzi does (column 3, lines 5-10, column 5, line 66 – column 6, lines 19. Libenzi teaches calculating identifiers from a unique filename, which transforms the filename). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Dougall to include calculating file identifiers. This would have been highly desirable, as it would allow the transmission network to assign unique file identifiers to in a way that could be repeated at the receiver, thus allowing for more efficient data transfer.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dougall et al. (Pub. No.: US 2003/0093485) in view of Libenzi (Pat. No.: US 6,745,192), and further in view of Walker et al. (Patent No.: 5,612,956).

Regarding claim 3, the combined teachings of Dougall and Libenzi teach **the method of claim 1,** and further Walker teaches **wherein said communications channel transports Digicipher II data packets** (Walker, column 7, lines 56-62)**.** Dougall et al. disclose the method of claim 1, however they do not disclose transporting Digicipher II data packets. Walker et al. disclose transporting data packets such as MPEG-2 or Digicipher II (column 7, lines 56-62). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to allow for the method of claim 1 to transport Digicipher II data packets. Having a

communications channel that transports Digicipher II would have been highly desirable, as Digicipher II is well known in the art as an encryption method, and therefore would have increased the number of possible applications of this method.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dougall et al. (Pub. No.: US 2003/0093485) in view of Libenzi (Pat. No.: US 6,745,192), and further in view of Keck et al. (Pub. No.: US 2004/0228414).

Regarding claim 4, the combined teachings of Dougall and Libenzi teach **the method of claim 1,** and further Keck teaches **wherein said communications channel transports Service Information (SI) data packets** (Keck, paragraph [0056], lines 9-11). Dougall et al. disclose the method of claim 1, however they do not disclose transporting SI data packets. Walker et al. disclose transporting data packets with SI data (paragraph [0056], lines 9-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to allow for the method of claim 1 to transport SI data packets. Having a communications channel that transports SI data packets would have been highly desirable, as SI data is well known in the art as a type of broadcast data, and therefore would have increased the number of possible applications of this method.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dougall et al. (Pub. No.: US 2003/0093485) in view of Libenzi (Pat. No.: US 6,745,192), and further in view of Choquette (Pat. No.: 6,088,784).

Regarding claim 9, the combined teachings of Dougall and Libenzi teach **the method of claim 8,** and further Choquette teaches **wherein the non-colliding multicast identifier is formed by adding a constant to the multicast identifier for which the collision condition is detected** (Choquette, column 6, lines 34-43)**.** Dougall et al. disclose the method of claim 8, however they do not disclose the use of this exact method for determining a multicast identifier. Choquette discloses using such a calculation to determine multicast identifiers (Choquette, Fig. 5, column 6, lines 24-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use this calculation for determining a multicast identifier. Having a multicast identifier determined in this manner would have been highly desirable, as it would be a simple method to change a repetitive multicast identifier, and thus would help to improve the efficiency with which the files were transported.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dougall et al. (Pub. No.: US 2003/0093485) in view of Libenzi (Pat. No.: US 6,745,192), and further in view of Yasuda et al. (Pub. No.: US 2004/0205152).

Regarding claim 12, the combined teachings of Dougall and Libenzi teach **the method of claim 11,** and further Yasuda teaches **wherein, for each of said filenames, the associated PID is determined by: (i) determining a PID index by the equation: PID index=X modulo**

NPIDSON, where PID index is an index into a table, X is a result of performing at least one XOR operation on two or more portions of the one of the group consisting of a cyclic redundancy code, a hash function and a pseudorandom number (Yasuda, paragraph [0163], lines 3-13)**, and NPIDSON is a number of packet processors to which payload files are being sent; (ii) performing a table lookup using PID index as a lookup parameter** (Yasuda, paragraph [0161], lines 5-7)**; and (iii) adding an offset to a value output by the table lookup.** Dougall et al. disclose the method of claim 11, however they do not disclose the use of this exact formula for determining a program identifier. Yasuda discloses using such a calculation to determine file identifiers. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use this formula for determining a program identifier. Having a program identifier determined in this manner would have been highly desirable, as it would help to improve the efficiency with which the files were transported.

Claims 16, 18 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dougall et al. (Pub. No.: US 2003/0093485) in view of Libenzi (Pat. No.: US 6,745,192), and further in view of Ungstad (Pub. No.: US 2005/0114751).

Regarding claim 16, the combined teachings of Dougall and Libenzi teach **the method of claim 15,** and further Ungstad teaches **wherein the multicast identifier is formed by performing an XOR operation** (Ungstad, paragraph [0042], lines 6-7) **on two non-contiguous portions of the one of the group consisting of a cyclic redundancy code** (Ungstad, paragraph

[0012], lines 1-6), **a hash function and a pseudorandom number.** Dougall et al. disclose the method of claim 15, however they do not disclose the use of this exact operation (using an XOR function) for determining a multicast identifier, or using a cyclic redundancy code. Ungstad discloses using such an operation to determine file identifiers, as well as using a cyclic redundancy code. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use this operation for determining a multicast identifier based on a cyclic redundancy code. Having a multicast identifier determined in this manner would have been highly desirable, as it would help to improve the efficiency with which the files were transported.

Regarding claim 18, the combined teachings of Dougall and Libenzi teach **the method of claim 1,** and further Ungstad teaches **wherein, for each file identifier, the associated PID is calculated from at least a portion of a cyclic redundancy code calculated from the filename associated with at least one packet of payload data to be transmitted** (Ungstad, paragraph [0012], lines 1-6)**; wherein the method further comprises transmitting the at least one packet of payload data to a packet processor that is identified by the PID.** Dougall et al. disclose the method of claim 1, however they do not disclose the use of a cyclic redundancy code for determining a program identifier. Ungstad discloses using a cyclic redundancy code to determine file identifiers. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a cyclic redundancy code for determining a program identifier. Having a program identifier determined in this manner would have been highly desirable, as it would help to improve the efficiency with which the files were transported.

Regarding claim 43, the combined teachings of Dougall and Libenzi teach **a method of transmitting payload data from a headend to a television converter** (Dougall, paragraph [0020], lines 1-3). Furthermore, Ungstad discloses **comprising the steps of: spinning a plurality of data units from the group consisting of packets and files without transmitting a directory of all of the data units being spun** (paragraph [0012], lines 1-6); **and calculating information used to spin the units of data by a common calculation that is used by the television converter to receive the units of data without a directory of all of the data units being spun** (paragraph [0012], lines 1-6). Ungstad discloses using a cyclic redundancy code to determine file identifiers, which can be construed as spinning the data units. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a cyclic redundancy code for determining a program identifier. Having a program identifier determined in this manner would have been highly desirable, as it would help to improve the efficiency with which the files were transported.

Claims 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dougall et al. (Pub. No.: US 2003/0093485) in view of Libenzi (Pat. No.: US 6,745,192), and further in view of Rybicki et al. (Pat. No.: US 7,359,920).

Regarding claim 19, Dougall discloses **a method for receiving a desired packet associated with a bit sequence from a server** (Dougall, paragraph [0036], lines 1-6), **comprising the steps of: (a) assigning a data identifier from the bit sequence associated with the desired packet** (Dougall, paragraph [0070], lines 8-11); **and (b) using the data**

identifier to receive the packet identified by the data identifier (Dougall, paragraph [0073], lines 5-7). However, Dougall does not explicitly disclose wherein the calculating is performed at a client. In analogous art, Rybicki teaches that **a client can assign a unique identifier for a file** (column 5, lines 15-27). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to allow for the method of Dougall assign the data identifier at the client. This would have produced predictable and desirable results, as having the client assign the identifier would reduce the amount of calculation needed to be done at the server.

Neither Dougall nor Rybicki disclose **calculating a data identifier from the bit sequence associated with the desired packet.** However, in analogous art Libenzi does (column 3, lines 5-10, column 5, line 66 – column 6, lines 19. Libenzi teaches calculating identifiers from a unique filename). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Dougall and Rybicki to include calculating filenames. This would have been highly desirable, as it would allow the client to assign unique file identifiers to the file names in a way that could be repeated at the server, thus allowing for more efficient data transfer.

Regarding claim 20, the combined teachings of Dougall, Rybicki and Libenzi disclose **wherein step (a) includes calculating the data identifier based on a common function that is also used by the server to calculate the data identifier when the server determines which data identifier to assign to the packet** (Dougall, paragraph [0070], lines 8-9).

Regarding claim 21, the combined teachings of Dougall, Rybicki and Libenzi disclose **wherein the data identifier is formed from one of the group consisting of a cyclic redundancy code, a hash function and a pseudorandom number** (Dougall, paragraph

[0168], lines 1-3. A generated random number will have an approximately uniform probability distribution) **generated using the bit sequence as an input, further comprising: selecting at least one portion of the data identifier as a payload identifier; and detecting payload data having the payload identifier transmitted therewith as the desired data** (Dougall, paragraph [0034]).

Regarding claim 22, the combined teachings of Dougall, Rybicki and Libenzi disclose **wherein the packet is received using a multicast identifier formed from at least one portion of a one of the group consisting of a cyclic redundancy code, a hash function and a pseudorandom number generated using the bit sequence as an input** (Dougall, paragraph [0168], lines 1-3. A generated random number will have an approximately uniform probability distribution).

Regarding claim 23, the combined teachings of Dougall, Rybicki and Libenzi disclose **further comprising: detecting a collision condition in which a received packet has a multicast identifier that matches the multicast identifier generated using the bit sequence** (Dougall, paragraph [0170], lines 1-11), **but a payload identifier associated with the received packet is different from the selected portion of the data identifier; receiving a transmission associating the one of the group consisting of a cyclic redundancy code, a hash function and a pseudorandom number with a non-conflicting multicast identifier** (Dougall, paragraph [0168], lines 1-3); **and receiving the desired packet using the non-colliding multicast identifier** (Dougall, paragraph [0073], lines 5-7).

Regarding claim 24, the combined teachings of Dougall, Rybicki and Libenzi disclose **wherein step (a) includes calculating a 64 bit number, of which a payload identifier is a portion** (Dougall, paragraph [0072], lines 12-13).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA TAYLOR whose telephone number is (571)270-3755. The examiner can normally be reached on 8am-5pm, M-F, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on (571) 272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Josh Taylor/
Examiner, Art Unit 2426

/Annan Q Shang/
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